Hopewell Furnace name: Modified Successional Forest
(No assigned NVCS alliance; Park-specific type)

I.B.2.N.e. Seasonally flooded cold-deciduous forest

I.B.2.N.e.1. ACER RUBRUM–FRAXINUS PENNSYLVANICA SEASONALLY FLOODED FOREST ALLIANCE

Red Maple–Green Ash Seasonally Flooded Forest Alliance

Hopewell Furnace name: Red Maple–Mixed Hardwood Palustrine Forest

Concept: This alliance is widely distributed in the eastern United States. Stands are dominated by broad-leaved deciduous trees and well-developed shrub and herbaceous strata. They are characterized by dense growth and a great diversity of species. Basal area can reach 40-42 m^2/ha. *Acer rubrum* and *Fraxinus pennsylvanica* are consistently abundant overstory species, but *Fraxinus profunda* (in the southern parts of this alliance's range), *Liquidambar styraciflua, Quercus lyrata, Quercus bicolor*, and *Ulmus americana* occur almost as frequently, and *Nyssa aquatica* and *Taxodium distichum* occur sporadically in the southern parts of this alliance's range. *Acer saccharinum* may dominate in parts of the range. The shrub layer can include a diverse mixture including *Carpinus caroliniana, Cephalanthus occidentalis, Forestiera acuminata*, and *Ilex decidua*, but *Itea virginica* is characteristic of southern stands of this alliance. Even with dense shading, the herbaceous layer is usually well-developed, displaying a preponderance of *Boehmeria cylindrica, Carex* spp., *Glyceria* spp., *Juncus* spp., *Laportea canadensis*, *Leersia* spp., and *Pilea pumila*. *Vitis* spp. are characteristic vines of this community, but *Toxicodendron radicans* and *Campsis radicans* are also prominent. Sites which support stands of this alliance have level or nearly level soils that formed in water-deposited clayey or loamy sediments on floodplains of the Mississippi and other rivers and large perennial streams in the Coastal Plain. These soils are flooded or saturated for a significant portion of the growing season, and water may be ponded for most of the year in shallow depressions. Flooding can reach 1 m. Flooding occurs during the winter and spring and often extends into the growing season.
Comments: Stands of this alliance support a diverse assemblage of bottomland hardwoods. Perhaps the most diagnostic is the mixture of bottomland hardwoods found there. Species typical of wetter and drier sites are commonly encountered, but the diagnostic environmental feature is shallow standing water or soil saturation for a significant portion of the growing season. Slight ridges within these flooded zones provide drier habitat for less flood-tolerant species.
Range: This alliance is widely distributed in the eastern United States in southern Michigan, Ohio, Indiana, Illinois, Wisconsin, southeastern Missouri, eastern Arkansas (?), Georgia, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee (?), Texas, South Carolina (?), North Carolina, central-western New York and the Lake Erie Plain of Pennsylvania, West Virginia, Maryland, New Jersey, and Virginia; and in Canada in southern Ontario.
States/Provinces: AR CT DE IL IN KY LA MA MD ME MI MO NC NH NJ NY OH ON PA QC? RI SC TN TX VA VT WI
Federal Lands: NPS (Acadia, Congaree Swamp, Great Smoky Mountains); USFS (Daniel Boone?, Ouachita?, Ozark?); USFWS (Little River, Reelfoot?, San Bernard)
Synonymy: Acer rubrum forest alliance (Hoagland 1998a); *Acer rubrum–Nyssa aquatica forest* (Robertson et al. 1984); Red maple–green ash. ? (Wharton et al. 1982); Spruce–Fir Boreal Swamp (Swain and Kearsley 2001); Alluvial Red Maple Swamp (Swain and Kearsley 2001); Black Ash Swamp (Swain and Kearsley 2001); Black Ash–Red Maple–Tamarack Calcareous Seepage Swamp (Swain and Kearsley 2001)
References: Faber-Langendoen et al. 1996, Golet et al. 1993, Hoagland 1998a, Robertson et al. 1984, Swain and Kearsley 2001, Wharton et al. 1982
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